The Finance Commission of the City of Boston
No. 24 School Street
Boston
Massachusetts

June 19, 1940

Honorable Maurice J. Tobin
Mayor of the City of Boston

Honorable Sir:

The police cost in Boston has been a topic of controversy for many years. Some people, individuals and organizations, impressed by Boston's eminence in national comparison of police costs, frequently demand reduction. Police administrators, on the other hand, periodically call for more men. More men obviously mean greater cost.

The proponents of reduction argue that the automobile, the radio and many other conveniences produced by modern science make possible more police work with less men and less cost. They point out, however, that police costs have increased rather than been reduced, and claim that there have been no changes in area or population to warrant it. On the other hand, the proponents of expansion argue that the automobile, the radio and the many other modern conveniences, plus the depression, have greatly increased the police work. They also point to 200 unfilled positions in the roster of the department, the accumulation of vacancies caused by death or retirement.

Since the police department payroll requires approximately $5,000,000 annual appropriation, and is exceeded only by the school department payroll, a substantial reduction would mean much in tax rate computations; but if 200 men, the number asked for by the

Police Commissioner, were added to the number in the police department on January 1, the payroll rate increase would be $320,000 in the first year of appointment and, as the 200 reach seniority, the increased rate would be approximately $400,000.

The Commission has noted that you have already acceded to the Police Commissioner's request to the extent of 30 men, with a promise of 60 more to come, and that there has been some adverse criticism of this concession. The payroll rate has, therefore, already been increased $48,000. Eventually this will become $60,000. If the promised 60 appointments are added later, it will mean a further initial rate increase of $96,000 with a maximum to be reached later of $120,000, making a grand total rate increase of $180,000 to which the plan to add 90 men in 1940 commits the City. This increased rate will presumably more firmly entrench Boston near the top of the comparisons of police cost in the large cities of the country.

The Finance Commission has attempted to find the reason for Boston's lofty position in the national comparison of police costs; and to find out if Boston needs any more men in the police department.

The question as to whether or not this position is justifiable, or, in simpler language, whether or not Boston has too few or too many policemen, can not be so easily approached as can the question of whether or not the City has too many or too few clerks or laborers or artisans. Most other municipal services can be expanded or contracted as the public pocketbook requires. The compelling reason for the creation of many of them was to provide a service which added to the comfort and convenience of the people. Many of them can be eliminated or curtailed arbitrarily without great public suffering.

The police services, however, must continue and must be adequate for the protection of the people and their property.

Importance of Police Force in Ordinary Life of City

In the beginning, therefore, it is well to consider the importance of a police force to any community. The maintenance of public order is vitally necessary to the common well-being. To guarantee to the individual the exercise of whatever rights a sovereign government bestows upon its people, the first agency set up by that government must be a body or a group whose duty it is to enforce the mandates of the government - and to protect it - and to preserve order. A nation usually has its army for that purpose; a province, colony, or state, has its constabulary; a municipality has its own local police force.

To the city or township, which has been set apart for the administration of the governmental functions, police protection is an elementary public service. Orderly development and use of all other public services are dependent upon it. The safeguarding of individual life, the guarantee of personal liberty, the opportunity to seek and obtain rightful happiness depend on the functioning of an authoritative force which can and must maintain orderly relations among the inhabitants. The peaceful exercise of the daily practices of commerce and industry depend upon police protection.

The responsibility of the ordinary policeman can not be overestimated. It is greater than that of the ordinary member of an army, or of a constabulary, or indeed of almost any other public employee. Though the policeman must enforce laws which others have made, he exercises his own judgment and discretion at all times in

such enforcement. He must decide for himself his course of action in the majority of the incidents of his work.

The policeman has greater contact with the people than have any other of the paid servants of the public. His work requires him to be where the people are most numerous, where property is most valuable, and where the dangers and hazards in ordinary business and social intercourse are greatest. It is his duty not only to watch the people themselves carefully, but to watch their property and their possessions. He is expected to suspect the dangerous and criminally minded, and to protect the innocent and law-abiding. And yet all his responsibility does not relate exclusively to law enforcement. The preservation of the public safety in every way is in many respects his responsibility. It can be said that there is no other branch of the public service so necessary to peaceful, orderly existence as the police service.

A policeman must be ready to serve the people, as occasion demands, for long or short periods of sunshine, or rain, cold or heat or hunger. He must be impervious to shock and strain; must be courageous and cool in the face of danger; must have considerable knowledge of laws and ordinances; must be able to apply first aid treatment to persons injured in accidents or other violent actions, or incapacitated by sudden collapse; must have knowledge of court procedure, particularly as to the strict requirements in the matter of presenting evidence in the courts; and must be calm, tactful, and discreet at all times in the performance of his duty. Often the life, liberty or the happiness of an individual or of groups of individuals depend upon the word or act of an ordinary policeman.

Difficulty in Determining What Constitutes Proper Police Cost

There is no yardstick by which the proper size and cost of a police service can be determined. A high official of the Federal Bureau of Investigation which, presumably, has more knowledge and information on crime conditions generally in the country than any other agency, and comes in contact with police service everywhere, made the statement to representatives of the Finance Commission at the beginning of this study that "it is distinctly the local conditions which determine the proper size and cost"; that "what might be proper for one city might be totally inadequate for another"; and that "the results obtained in crime prevention must be considered in any appraisal of the size and cost."

Scope of Investigation

In the absence, therefore, of any tried and reliable method of determining what the cost should be in Boston, the Commission has first analyzed the situation in these two ways:

First, taking the size and cost in 1912 as a basis, the Commission has compared the relative cost of police, school and all other municipal services from 1912 periodically to the present time.

Next, the Commission has analyzed the national comparisons which are so freely quoted to prove Boston police costs are too great.

Extent of First Report

This report will deal only with the relative cost of police service in Boston and the comparison of police cost with police costs in other large cities.

Basis of Comparison

The Commission has taken as its starting point the year 1912. Any comparative figures prior to that time would have had to have been adjusted on account of a difference in area, the last addition to the City having occurred in that year when Hyde Park was annexed.

Factors Compared

The size of a city, its population, and the wealth or value of the property which the police must protect are generally conceded to be the three most important factors upon which comparative police costs should be considered.

Area of Boston

The area of the City has remained unchanged since Hyde Park was annexed in 1912. After that annexation the area was computed officially to be 27,612 acres of land, 1546 acres of flats, and 1137 acres of water, making a total of 30,295 acres. In square mileage this amounted to 43.1 square miles of land, 2.4 square miles of flats and 1.8 square miles of water. In the most recently published Municipal Register the area of the City is given as 30,598 acres of land, flats and water. It may be accepted, despite this discrepancy in the official figures, that the area of Boston to-day is the same as it was in 1912. Usually, in the comparison of Boston statistics with those of other cities the area of the City is given as approximately 48 square miles.

Population of Boston

In the meantime there has been substantial growth in population. The estimated population in 1912, compiled officially, was 711,128. The estimated population compiled officially in 1939 was 811,816. There has been, therefore, an increase of 14 per cent in the population of the City since 1912.

Wealth of Boston

The value of taxable property in Boston, real and personal, as fixed for municipal purposes in 1912, was $1,489,608,820. In 1939 the value of taxable property was $1,524,806,000, an increase of 2.3 per cent.

SECTION I.

The Relation of the Total Police Cost to the Cost of Other Services

The following comparisons of police costs by year, periodically, and the relation of the police cost to the costs of the other major municipal services are offered:

PAYMENTS FROM REGULAR DEPARTMENT APPROPRIATIONS*

Year	Police	Schools	All Others	Total
1912	$2,341,678	$5,119,857	$12,081,887	$19,543,422
1915	2,685,432	6,065,656	13,093,345	21,844,433
1920	3,702,037	9,897,928	19,178,423	32,778,388
1926	5,166,086	15,118,502	25,156,939	45,441,527
1930	6,111,278	17,008,712	30,487,600	53,607,590
1935	5,771,456	17,027,510	37,268,577	60,067,543
1939	5,881,872	16,432,115	36,308,269	58,622,256

*Figures from all years except 1939 taken from table marked "Payments from Regular Department Appropriations", in the City Auditor's annual reports of the years cited. 1939 figures obtained from Auditor's office.

The above table reveals that during this period payments for the services compared increased as follows:

	Police	Schools	All Others	Total
Total Increase	$3,540,194	$11,312,258	$24,226,382	$39,078,834
Percentage	151.1%	220.9%	200.5%	199.9%

It is not within the purpose of this report to analyze and explain the reasons for the increase in school cost, or in the cost of other services. The above summation is offered simply to show what

the police cost increase has actually been in comparison with the whole cost of municipal maintenance, with school cost, and with the cost of services other than police and school, at various times in the twenty-eight years under consideration.

The proportion of the police cost to the other costs mentioned has decreased substantially in the period compared. Yet the advance in police cost has far outstripped the growth in population and valuation, and, as stated above, the area has remained unchanged.

The following percentage table shows at seven periods in the last twenty-eight years the proportion which each of the particular services under consideration bore to the whole cost of regular service in those years:

Year	Police	Schools	All Others
1912	11.98%	26.19%	61.83%
1915	12.29	27.77	59.94
1920	11.29	30.20	58.51
1926	11.36	33.27	55.37
1930	11.40	31.72	56.88
1935	9.60	28.35	62.05
1939	10.03	28.03	61.94

The proportion of the police cost to the whole has become gradually less and is finally approximately two per cent less in 1939 than it was in 1912. On the other hand, the school cost in 1939 absorbed approximately two per cent more of the whole. The cost of all other ~~sources~~ services, after a long period of decline, has come back during the depression era to the 1912 level.

The Boston Police Department was generally believed to be well and economically administered in 1912, but it would appear from the above analysis that at the present time the cost of policing the City is relatively less than it was in 1912.

The Relation of the Police Payroll to the Payrolls for the Other Municipal Services

The issue which has been raised in regard to the police situation relates specifically to the payroll cost of the police department. It is of interest, therefore, to show how the payroll cost of the police department has changed in comparison with the payroll cost of other services.

PAYROLL COST

Year	*Police	*Schools	*All Others	Total
1912	$2,022,942	$4,176,697	$6,503,863	$12,703,502
1915	2,324,107	4,941,903	6,998,750	14,264,760
1920	3,054,127	7,729,458	10,572,970	21,356,555
1926	4,383,012	12,086,332	14,784,303	31,253,647
1930	5,266,039	13,961,939	16,938,393	36,166,371
1935	4,899,192	14,623,175	16,369,162	35,891,529
1939	5,031,346	14,602,665	15,876,338	35,510,349

*Figures taken from annual reports of City Auditor

It develops from the foregoing table that the police payroll in 1912 was 15.9 per cent of the payroll for all regular municipal service, but in 1939 the police payroll had become only 14.1 per cent of the entire payroll for regular municipal service; and it may be seen by deduction from the immediately foregoing table and the table of

total costs of services given earlier that the police payroll in 1912 was 86.3 per cent of the total police cost, but in 1939 the police payroll was only 85.5 per cent of the total police cost.

In the period compared, the amount of the increase in payroll cost in dollars and in percentage is as follows:

1912-1939	Police	Schools	All Others	Total
Increase in Payroll Expenditures	$3,008,404	$10,425,968	$9,372,475	$22,806,847
Percentage of Increase	148.7%	249.6%	144.1%	179.5%

Comparing the increase in the payroll cost of each of these services with the increase in the whole cost of them produces the following results:

1912-1939	Police	Schools	All Others	Total
Payroll Increase	148.7%	249.6%	144.1%	179.5%
Whole Increase	151.1	220.9	200.5	199.9

It is apparent from the foregoing analyses that the increased police cost has been due to the increase in payroll, but the proportion which the police payroll bore to the whole payroll of city service in 1939 has become less than it was in 1912.

The Relation of the Number of Employees in the Police Department to the Number in Other Services

*NUMBER OF EMPLOYEES (as of June 1)

Year	Police	Schools	All Others	Total
1912	1,615	3,802	8,248	13,665
1915	1,729	4,186	8,397	14,312
1920	1,920	4,665	8,426	15,011
1926	2,202	5,960	9,643	17,805
1930	2,459	6,748	10,360	19,567
1935	2,333	6,644	11,283	20,260
1939	2,380	6,242	10,458	19,080

*As taken from list annually compiled by City Auditor.

The increase in number of employees and in percentage of employees in the period compared is as follows:

	Police	Schools	All Others	Total
Number	765	2,440	2,210	5,415
Per Cent	47.3%	64.1%	26.7%	39.6%

The relation of the percentage of increase in payroll cost to the percentage of increase in number of employees is:

	Police	Schools	All Others
Per Cent Increase in Total Pay	148.7%	249.6%	144.1%
Per Cent Increase in Numbers	47.3	64.1	26.7

The average pay of the employees of the services compared and the percentage of increase since 1912 is here shown:

Year	Police	Schools	All Others	Average For All Groups
1912	$1,252	$1,098	$ 788	$ 929
1939	2,114	2,339	1,518	1,861
Increase	68.8%	113.0%	92.6%	100.3%

The conclusions to be drawn from these figures are substantially as follows:

The total of regular department appropriations almost exactly tripled in the twenty-eight years under review, the appropriation for the schools more than tripled, while that for the police went up only 2-1/2 times. The total number of employees in all regular departments increased about 40 per cent, and their average pay has doubled. The total number of employees in the school department increased a little less than two-thirds and their average rate of pay more than doubled. The total number of employees in the police department increased a little less than half and the average pay increased about 70 per cent. The total number of employees in all other departments increased by somewhat more than a fourth and the average pay increased 92.6 per cent.

Comparison of Per Capita Cost

Here is offered a comparison of the per capita cost of the police service in Boston with the per capita costs of other Boston services:

PER CAPITA COST

Year	Population	Police	Schools	All Others**
1912	711,128	$3.29	$7.20	$16.98
1915	721,344*	3.72	8.41	18.15
1920	748,888	4.94	13.22	25.60
1926	768,760	6.72	19.67	32.72
1930	782,008	7.81	21.75	38.98
1935	798,568	7.23	21.32	46.66
1939	811,816	7.25	20.24	44.72

*Population figures adjusted after publication of 1915 census figures.

**Includes welfare costs.

The per capita cost of the services compared have increased in the following proportion between 1912 and 1939:

	Police	Schools	All Others
Actual Per Capita Increase	$3.96	$13.04	$27.74
Per Cent of Increase	120.3%	181.1%	163.3%

No Comparison on Basis of Taxable Valuation

In this section of the report the Commission is making no appraisal of the costs of the police department on the basis of the value of property protected. There is no question but that the value of property subject to police jurisdiction is an important factor in determining the reasonableness of the cost of a police department, but certain elements of conjecture as to the increase in the actual wealth of the City of Boston between 1912 and 1939 are of importance sufficient that the Commission believes comparisons based on the relative taxable valuations in these years would not be free of doubt or criticism.

As has previously been stated, the actual increase in valuation of taxable property in the City in twenty-eight years was only 2.3 per cent. But it should be remembered that in 1930 the taxable property was valued at almost two billion dollars - almost 500 million dollars more than at present - and that there has been a sharp reduction in assessment since that time without any substantial demolition to correspond. Furthermore, there has been an increase of 200 million dollars in non-taxable property, and, as a counterbalancing factor, the elimination from the tax rolls of the intangibles which were carried thereon in 1912 - prior to the enactment of the income tax law. Finally, there is a question as to the relative variation between the assessed values and the actual values of property in the years 1912 and 1939.

In view of these factors the Commission is not satisfied to rely on the figure of 2.3 per cent as accurately reflecting the actual increase in its wealth protected by the Boston Police Department, and is therefore unwilling to base comparisons of relative police cost in the years in question upon any such percentage of increase as 2.3 per cent.

In the second section of its report, however, where comparison is made with other cities, many of the conjectural factors are common to all, and although they mitigate against the value of the conclusions finally arrived at, cannot be said to distort them unduly.

SUMMARY of Analyses of Comparisons of Police Cost with Cost of Other Services

In the foregoing comparisons, the situation in regard to police cost has been tested in various ways. All the tests have been solely for the purpose of showing the relation of the advance in police cost to the advance in cost of other municipal services. The most important conclusion that may be drawn from these comparisons is that, whether or not the increase in police cost in the period compared can be entirely justified, the amount of the increase, in proportion to the whole cost of the regular municipal services, has not been so great in the police department as it has been outside the police department. The advance in police cost since 1912 has been traced, by these comparisons, to the payroll, and the payroll analysis brings out the fact that while the number of employees has been increasing 47.3 per cent, the average pay has been increased 68.8 per cent.

Therefore, in addition to the showing that the police department costs have not advanced in the same proportion as have the costs in the other regular municipal services (taken as a whole, except for school service which was shown separately) this analysis shows that while the size of the force has been increased to a certain extent, the rate of pay has been increased to a greater extent. It is due, therefore, slightly more to higher pay than to more men that the payroll cost has been increased 148.7 per cent.

SECTION II.

COMPARISON OF BOSTON POLICE COST WITH POLICE COST IN MAJOR CITIES OF COUNTRY.

Criticism of the police cost in Boston has been frequent and persistent for several years. The basis of this criticism has been a comparison of police costs in Boston with the police costs in the other leading cities of the country. In all of these comparisons, it has been claimed that the cities compared were, in respect to police costs, on a common basis, and that, therefore, the comparison furnished a proper ground on which to predicate criticism and recommendations.

In this second analysis, the Finance Commission has assembled the figures of the police cost of the nine leading cities and has made comparison along the lines suggested by the critics for the purpose of determining what merit there is in them.

The Source of the Figures Used

The Commission has tried to obtain reliable figures pertaining to the other municipalities without having visited the majority of those other cities. Many different agencies produce municipal statistics. Unfortunately it rarely happens that any two of them use the same basis. Sometimes the reason for this is that there are different interpretations of actual costs; and at other times data is taken before final figures are available. Often it happens that the legends describing tables of figures are worded so as to permit the readers to assume different meanings. Here in Boston figures of expenditure by a particular department furnished by

that department vary from those relating to the same department but obtained from another recording department.

The Division of the United States Census Bureau, which issues "Financial Statistics of Cities", makes an effort to obtain uniformity in returns from the different cities. In this work, however, at times it is necessary to decide arbitrarily which is the correct figure.

In the following tables the Finance Commission shows the comparison in cost for 1912 and 1939, and the advance in cost since 1912. The figures used for 1912 have been taken from the United States Census Bureau reports, but Census Bureau figures for 1939 have not yet been issued. Therefore, the Commission has obtained certain figures for 1939 from the mayors of the cities compared, and other figures from other responsible agencies. The Commission has used every effort to obtain the most reliable figures.

As in the case of the tables heretofore given, the succeeding tables are developed in terms of areas of the municipalities, population, and finally, value of the property which the police guard.

The Relative Areas of the Nine Large Cities

The Commission offers first (in the order of their size in 1939) the 1912 and 1939 areas and the percentage of change.

TOTAL AREAS IN SQUARE MILES

City	1912	1939	Increase	% Increase
New York	286.8	327.0	40.2	14.0%
Chicago	191.3	212.8	21.5	11.2
Detroit	41.5	137.9	96.4	232.2
Philadelphia	132.7	129.5	- 3.2	- 2.4
Baltimore	31.6	78.72	47.1	149.0
Cleveland	46.0	73.43	27.4	59.5
St. Louis	61.3	61.3	0.0	0.0
Pittsburgh	41.6	54.5	12.9	31.0
Boston	47.3	47.81	0.5	1.0

1912 figures obtained from Statistics of Cities.

1939 " " " Reliable Semi-Official Sources.

This comparison reveals that in 1912 Boston ranked fifth in area among the nine cities compared. In 1939 Boston has dropped to last place.

It should be noted that many of the other cities have greatly expanded their areas by annexations within the period under review. Therefore, it may be assumed that as these other cities expanded in the past thirty years, the annexations contained for the most part suburban residential sections. Public service costs are less in such sections than are the costs of public services in the business centres.

The Relative Population of the Nine Large Cities

In the previous analysis the Commission used the official estimate of the population of Boston in 1939 prepared by the Health Department. This estimate is more conservative than are all the other estimates made by various agencies. It gives a total population for Boston which is less than was shown in the state census of 1935, but there is evidence of migration from Boston since that year which justifies this lower estimate.

In figuring per capita cost, the use of the smaller estimate is less advantageous to Boston in the comparisons than would be the use of the 1935 census figure. However, for fairness and accuracy, the Commission believes the health department estimate should be used.

With this explanation, the Commission offers the following comparison of population between the leading cities of the country, and the growth in each since 1912.

TABLE SHOWING POPULATION AND INCREASE IN POPULATION BETWEEN THE YEARS 1912 AND 1939 IN VARIOUS LARGE CITIES

City	1912	1939 Estimated	Increase	% Increase
New York	5,064,237	7,612,000	2,547,763	50.3%
Chicago	2,294,711	3,711,700	1,416,989	61.7
Philadelphia	1,606,102	2,065,735	459,633	28.6
Detroit	503,445	1,600,000	1,096,555	217.8
Cleveland	596,970	933,200	336,230	56.3
Baltimore	569,560	868,990	299,430	52.5
St. Louis	712,027	840,964	128,937	18.1
Boston	711,128	811,816	100,688	14.1
Pittsburgh	550,667	700,000	149,333	27.1

1912 figures obtained from Statistics of Cities.

1939 " " " Mayors of Cities.

In population, Boston ranked fifth in 1912. In 1939 Boston ranked eighth. In actual numbers of population and in percentage Boston has increased in this period less than any other city.

It usually follows that larger areas contain a larger number of people. The combination of larger areas and larger numbers of people requires a larger number of policemen. When it comes to spreading a given sum over a larger area, the per square mile cost is reduced as the area becomes larger. Likewise when a given sum is spread over a larger number of people, the per capita cost is also reduced as the number increases.

In one of the foregoing comparisons, Boston is shown to have grown less in area than have six of the other eight cities. In

another, Boston has grown in population least of all. It naturally follows, therefore, that in comparison with other cities, there has been less apparent reason for increase in the number of policemen in Boston than in any other of the largest cities based on area or population changes.

The Relative Taxable Wealth of the Nine Leading Cities

Comparison of taxable wealth among the cities is hazardous because it is particularly difficult to reach a common basis for comparison. Some cities tax real estate, tangible personal property, and intangible personal property. Others, like cities in Massachusetts, do not tax intangible personal property.

In some cities it is a practice to assess property to its full value. In other cities it is not, and in these cities the degree of under-assessment varies substantially. In some cities the legal basis of assessment is stiff and unyielding. In others substantial discretion is lodged with the taxing authorities. In Boston the fair cash value is supposedly the basis of assessment. Yet there is no unanimity of opinion as to how this requirement is met. Frequently it is claimed that downtown property is over-assessed, and that portions of the outlying sections are under-assessed, and there is ample evidence at hand to support both claims.

What is true of Boston in this respect is undoubtedly true of other municipalities. Hence figures of taxable wealth in comparisons between cities are likely to be misleading.

However, figures of valuation as worked out in each municipality are often used as a basis of comparison of costs - police costs as well as costs of other services.

For 1912, the Commission has used the figures of valuation compiled by the United States Census Bureau. For 1939, the Commission has used figures compiled by the Detroit Bureau of Municipal Research for its annual publication, "The Comparative Tax Rates of Cities."

With this explanation, the following comparison of valuations and the percentage of growth is submitted.

ASSESSED VALUATION

City	1912	1939	Increase	% Increase
New York	$9,177,495,629	$16,640,632,939	$7,463,137,310	81.3%
Philadelphia	1,556,323,614	2,528,453,723	972,130,109	62.4
Detroit	452,255,100	2,471,597,680	2,019,342,580	446.5
Chicago	940,450,171	1,948,179,881	1,007,729,710	107.1
Boston	1,489,608,820	1,524,806,000	35,197,180	2.3
Baltimore	723,800,340	1,227,851,458	504,051,118	69.6
Cleveland	756,831,185	1,218,775,831	461,944,646	61.0
Pittsburgh	749,583,440	1,098,771,890	349,188,450	46.5
St. Louis	652,261,285	1,055,515,347	403,254,062	61.8

These figures, such as they are, show that Boston has dropped from third in 1912 to fifth in 1939, and that its percentage of increase in that period is completely out of line with valuation increases in all the other compared cities. It should be recalled that the Boston valuation included intangible wealth in 1912, and excluded it in 1939.

It is obvious that the police cost is not relieved to any extent by the elimination of intangible wealth from the taxable valuation. Presumably, intangibles are physically where they always were whether taxed by the municipality as personal property or by the state through the income tax law. It is clear, however, that the eliimination of intangible wealth from municipal valuation counts heavily in arriving at costs per $1,000 of valuation - a basis of comparison frequently used.

Summary of Area, Population and Valuation Comparisons

Boston has changed less in area, population and valuation than any other of the large cities of the country. Hence the advance in the police cost, whatever it be, is due less in Boston to more territory to patrol, to more people to watch, or to more value to guard than it is in any of the nine cities compared.

Increase in Police Costs

The following table gives the increase in total police costs in the nine cities compared:

POLICE COSTS

City	1912 Total Cost	1939 Total Cost	Per cent of Increase
New York	$15,036,192	$67,154,421	346.6%
Chicago	6,706,165	17,266,691	157.4
Philadelphia	4,323,957	11,443,554	164.6
Detroit	1,009,694	11,423,117	1,031.3
Boston	2,266,268	5,881,909	159.5
St. Louis	2,020,421	5,618,679	178.0
Baltimore	1,256,407	4,807,056	282.6
Cleveland	895,896	4,730,000	427.9
Pittsburgh	1,137,998	2,763,692	142.8

The figures of police cost in this table vary slightly from the figures used in the first section of this report. Previously, since it was a comparison between services in Boston, the figures used were those compiled by the city auditor of Boston in the annual reports for the years compared. For the purposes of this comparison, since it is a comparison between cities, the Commission has taken the figures for 1912 from the United States Census Bureau report and for 1939 from the publication of the International City Managers Association known as "The Municipal Year Book." Both of these agencies make special effort to reach a common basis for comparison, and while neither claims to be 100 per cent accurate, their figures are the best obtainable for the purpose.

The above table finds Boston in fourth place in police cost in 1912 and fifth in 1939. In percentage of increase in the period compared, it is seventh.

The percentage of increase in area, population and valuation and the percentage of increase in police cost are given in the following table:

PERCENTAGE OF INCREASE 1912 TO 1939

City	Area	Population	Valuation	Police Cost
New York	14.0%	50.3%	81.3%	346.6%
Chicago	11.2	61.7	107.1	157.4
Philadelphia	2.4 *	28.6	62.4	164.6
Detroit	232.2	217.8	446.5	1,031.3
Boston	1.0	14.1	2.3	159.5
St. Louis	0.0	18.1	61.8	178.0
Baltimore	149.0	52.5	69.6	282.6
Cleveland	59.5	56.3	61.0	427.9
Pittsburgh	31.0	27.1	46.5	142.8

* Decrease

It is difficult to extract any definite conclusion from this table. Boston had less change in area, population, and valuation - taken together - than any other city; yet, its police cost advanced slightly more than Pittsburgh and Chicago which had experienced many times the expansion of Boston under all three headings. No two cities showed any constant relationship between the increase in their police costs and the increase in their area, population and taxable wealth. About all that can be said is that although in rate of increase in two out of three of these elements, Boston footed the list and was close to the foot in the other, nevertheless its rate of increase was not substantially different from the rate of increase in the cities in which large increases in all these three elements occurred.

Relation of Police Cost to Area, Population and Valuation

The Commission next examines the relation of the police cost in the nine cities to the size of the area policed, to the number of people, and to the value of the property in the area.

Police Cost Per Square Mile

The following table reveals the changes which have taken place between 1912 and 1939:

INCREASE IN POLICE COSTS PER SQUARE MILE FROM 1912 TO 1939 IN VARIOUS LARGE CITIES

City	Cost Per Sq.Mile 1912	Cost Per Sq.Mile 1939	Per Cent of Increase
New York	$52,427	$205,365	291.7%
Boston	47,912	123,026	156.7
St. Louis	32,959	91,658	178.0
Philadelphia	32,584	88,367	171.1
Detroit	24,329	82,842	240.5
Chicago	35,055	81,140	131.4
Cleveland	19,476	64,415	230.7
Baltimore	39,759	61,065	53.5
Pittsburgh	27,355	50,709	85.3

In 1912, in police cost per square mile Boston ranked second. In 1939, Boston still ranked second. In the intervening period five cities increased their police costs per square mile by a greater percentage than did Boston, and three did not. Of the latter three, Chicago had very substantial increases in area, population and valuation, and the percentage of increase per square mile nearly matched the percentage of increase in dollars and cents of police cost. On the other hand, Baltimore - which more than doubled in size - increased 52 per cent in population, 69 per cent in valuation, and advanced in percentage of police cost 283 per cent, nevertheless increased its cost per square mile only 53.5 per cent.

In other words, while Boston was almost stationary in area, population and valuation, Baltimore advanced 149 per cent in area, 52 per cent in population and 69 per cent in valuation; yet, the police cost per square mile in Baltimore advanced at only one-third the rate of advance in Boston.

Yet it is difficult to draw any definite conclusions from the whole table. No uniformity of increase in police cost depends on any one factor, or on all together. New York, the largest city in area - and consequently with the greatest area over which to spread the cost - has the greatest cost per square mile; but Boston, the smallest of the cities compared, does not have the smallest cost. Cleveland and Baltimore are of nearly the same size; yet, in Baltimore, the larger of the two, the cost per square mile is less than it is in Cleveland; and St. Louis, 28 per cent smaller than Baltimore, has a per square mile cost which is 33 per cent higher than Baltimore. Boston and Pittsburgh are nearly alike in size, yet police cost in Boston is almost 2-1/2 times what it is in Pittsburgh. Philadelphia and Detroit, nearly the same size, are also very close in police cost per square mile; yet Chicago, which is 50 per cent larger than Detroit, has a smaller police cost per square mile.

It is apparent, therefore, that there is no great merit in evaluating a police department on the basis of the police cost per square mile. In the city with the greatest area over which to spread the cost, the police cost is the greatest per square mile. In the city with the least area, the police cost is the next greatest.

Police Cost Per Capita

In per capita cost, again there is a similar lack of uniformity in the results as may be seen in the following table:

INCREASE IN POLICE COSTS PER CAPITA FROM 1912 TO 1939 IN VARIOUS LARGE CITIES

City	Per Capita 1912	Per Capita 1939	Increase	Per Cent of Increase
New York	$2.97	$8.82	$5.85	196.9%
Boston	3.19	7.25	4.06	127.2
Detroit	2.01	7.14	5.13	255.2
St. Louis	2.84	6.68	3.84	135.2
Philadelphia	2.69	5.54	2.85	105.9
Baltimore	2.21	5.53	3.32	150.2
Cleveland	1.50	5.07	3.57	238.0
Chicago	2.92	4.65	1.73	59.2
Pittsburgh	2.07	3.95	1.88	90.8

In 1912 Boston had the highest per capita police cost. In 1939 it had given way only to New York. New York and Detroit had increased in area to a greater extent than had the other cities. New York had increased in population more than any other, and Detroit's increase in population had been exceeded also by that of Chicago; yet, the increase in the percentage of the police cost per capita in Detroit was the largest of the nine cities, and the New York increase was exceeded by Detroit and Cleveland. Chicago, with a fairly small increase in area, the second greatest increase in

population and the third greatest increase in valuation, experienced the smallest advance in police cost per capita and was well below the top figure in cost per square mile. Apparently, in these nine cities no uniform relationship can be detected between the actual dollar increase in their police costs and their per capita increase.

Police Cost Per $1000 of Valuation

Police costs per $1000 of valuation have increased in every city in the nine compared, as is shown in the following table:

	COSTS PER $1000			
City	1912	1939	Amt. of Increase	Per Cent of Increase
Chicago	$7.13	$8.86	$1.73	24.2%
St. Louis	3.10	5.32	2.22	71.6
Detroit	2.23	4.62	2.39	107.1
Philadelphia	2.78	4.53	1.75	62.9
New York	1.64	4.04	2.40	146.3
Baltimore	1.74	3.92	2.18	125.2
Cleveland	1.18	3.88	2.70	228.8
Boston	1.52	3.86	2.34	153.9
Pittsburgh	1.52	2.52	1.00	65.7

In police cost per $1000 of valuation, the cost in the nine cities has increased generally without having changed materially the order of the cities in this respect. Boston in 1912 was tied with Pittsburgh for second last position. In 1939 Boston is alone

in second last position. Cleveland has gone ahead of Boston by a slight margin, and Pittsburgh has dropped behind by a substantial margin.

The amount and percentage of the changes vary greatly. In no instance does the percentage of this increase match closely the percentage of increase shown in the preceding tables.

The Detroit increase in dollars and cents is slightly in excess of the Boston increase, yet in percentage the Boston increase is approximately 50 per cent greater than the Detroit increase.

In Cleveland the area, the population, and the valuation have increased fairly evenly. Yet in police cost per $1000 of valuation, Cleveland had the greatest increase, and this increase is completely out of line with increases in area, population, and valuation.

Where Boston stands in the various comparisons is shown in this composite picture:

COMPOSITE OF RELATIVE POSITION OF CITIES IN 1912

	Area	Population	Valuation	Police Cost In Dollars	Cost Per Square Mile	Cost Per Capita	Cost Per $1000 Val.
1.	New York	New York	New York	New York	New York	BOSTON	Chicago
2.	Chicago	Chicago	Philadelphia	Chicago	BOSTON	New York	St. Louis
3.	Philadelphia	Philadelphia	BOSTON	Philadelphia	Baltimore	Chicago	Philadelphia
4.	St. Louis	St. Louis	Chicago	BOSTON	Chicago	St. Louis	Detroit
5.	BOSTON	BOSTON	Cleveland	St. Louis	St. Louis	Philadelphia	Baltimore
6.	Cleveland	Cleveland	Pittsburgh	Baltimore	Philadelphia	Baltimore	New York
7.	Pittsburgh	Baltimore	Baltimore	Pittsburgh	Pittsburgh	Pittsburgh	*Pittsburgh
8.	Detroit	Pittsburgh	St. Louis	Detroit	Detroit	Detroit	*BOSTON
9.	Baltimore	Detroit	Detroit	Cleveland	Cleveland	Cleveland	Cleveland

*Pittsburgh and Boston have same cost per $1000 of valuation.

COMPOSITE OF RELATIVE POSITION OF CITIES IN 1939

	Area	Population	Valuation	Police Cost In Dollars	Cost Per Square Mile	Cost Per Capita	Cost Per $1000 Val.
1.	New York	New York	New York	New York	New York	New York	Chicago
2.	Chicago	Chicago	Philadelphia	Chicago	BOSTON	BOSTON	St. Louis
3.	Detroit	Philadelphia	Detroit	Philadelphia	St. Louis	Detroit	Detroit
4.	Philadelphia	Detroit	Chicago	Detroit	Philadelphia	St. Louis	Philadelphia
5.	Baltimore	Cleveland	BOSTON	BOSTON	Detroit	Philadelphia	New York
6.	Cleveland	Baltimore	Baltimore	St. Louis	Chicago	Baltimore	Baltimore
7.	St. Louis	St. Louis	Cleveland	Baltimore	Cleveland	Cleveland	Cleveland
8.	Pittsburgh	BOSTON	Pittsburgh	Cleveland	Baltimore	Chicago	BOSTON
9.	BOSTON	Pittsburgh	St. Louis	Pittsburgh	Pittsburgh	Pittsburgh	Pittsburgh

Boston was fifth in area and population and third in valuation in 1912 when its police cost per capita was highest among the cities, when its cost per square mile was second highest, and when its cost in dollars was fourth highest.

In 1939 when its area is smallest of the cities, its population second lowest, and its valuation had dropped to fifth place, the police cost per square mile and per capita remained near the top, actually second highest, and its cost in dollars dropped from fourth place to fifth place. Yet though fifth highest in valuation, Boston is eighth, or second lowest in police cost per $1000 of valuation.

New York is uniformly highest in every comparison, except per $1000 of valuation, and Pittsburgh is uniformly low in every comparison, being lowest in five of the seven comparisons and next to lowest in the other two. It should be noted, however, that Pittsburgh's police force has been found to be inadequate by a reputable organization which surveyed the police department in 1937. In a report made under the auspices of the Institute of Public Administration, Luther Gulick, Director, (Page 123, Survey of 1937) it is stated:

> "When compared with the forces of other cities, the Bureau of Police is relatively larger than it appears, because certain functions customarily performed by a police department are delegated in Pittsburgh to other divisions of the Department of Public Safety."

This Pittsburgh report points out (Page 124) that when the number of men available for foot patrol is divided into three shifts,

there remains for 11 precincts covering 55 square miles a total of "81 foot patrolmen available per tour to cover and ptotect the lives and property of the residents ..... The above figures reveal a serious situation." (Page 135)

CONCLUSIONS

In making the foregoing study the Commission has had two purposes in mind: first, to find out whether or not Boston needs more policemen; and secondly, to establish definitely the extent to which that question can be determined by the use of the statistics relating to other services in the City or statistics relating to police costs in other cities.

The Commission has come to the conclusion that the first question cannot be answered with any degree of assurance by the use of such comparative statistics as have been frequently the basis of recommendations to the Mayor in the past. At best, they can be relied upon only as indications, at worst they are frankly confusing. The Commission believes that the foregoing analysis is useful, if not necessary, in order to establish once and for all the actual values of such comparative statistics.

They indicate that the cost of the police force in Boston compared with that in other cities is on the whole high. But they cannot be relied on to establish that such cost is too high, and they do not answer the question as to whether Boston needs more policemen. The Commission believes that this question can be better answered through an examination of the assignments in the police department itself with a view of ascertaining whether or not a different disposition will not result in a substantial increase of efficiency and of available policemen hours. This examination, which will also include an examination of other factors in connection with the department, the Commission is now undertaking.

The statistics and tables previously presented require certain additional comment. In preparing both series of comparisons the Commission was faced with the necessity of finding a starting point where police expense in Boston was presumably proper and police protection presumably satisfactory.

It happens that there was a period in which the situation was very close to this ideal. Few will dispute the claim that in the late Stephen O'Meara the City of Boston had an able Police Commissioner, or that in his term of office the police department was capably administered. The middle years of his administration were just prior to the outbreak of the First World War and for that reason were free of many of the complications which occurred in it and afterwards. Of those years, the Commission has chosen the year 1912, because prior thereto the figures in regard to Boston would not be readily comparable with figures of subsequent years owing to the annexation of Hyde Park as of January 1, 1912.

Commencing with that year the Commission has shown in Section I the relative increases in costs of the police department, the school department and the other municipal services.

These various tables reveal that, as might be expected, the police cost has become very much greater in 1939 than it was in 1912; but that in relation to the costs of other services, the police cost has become proportionately less. Obviously, this disclosure is not conclusive evidence that police cost today is down to or below the proper level.

In the second comparative analysis, using the same year (1912) as a starting point, the Commission attempted to compare the cost of police service in Boston with the cost of police service in other large American cities. The Commission followed the methods of comparison most frequently used by others. This comparison produced many vagaries, the most significant of which is easily discernible in the relative position of Boston in per square mile cost, per capita cost and per $1000 of valuation cost. Boston's position in all three has changed only slightly between 1912 and 1939. It was second in per square mile cost and first in per capita cost in 1912, while in 1939 it was second in per square mile cost and second in per capita cost. On these two bases of comparison Boston ranked high throughout the period.

However, on the basis of cost per $1000 of valuation, Boston's position throughout the period has been relatively quite different. It was eighth in 1912 and it was still eighth in 1939.

Another vagary of slightly less degree is that while Boston dropped from fourth place in total cost of police service in 1912 to fifth place in 1939, in percentage of increase in the intervening period it was seventh.

The wide discrepance in the results derived through the application of these methods of comparison serve to cast doubt on the reliability of one or all.

Examination of the methods of comparison themselves shows that there is substantial reason for such doubt. Although both the area and the population of a city have a bearing in determining the propriety of police cost, neither alone is a reliable basis of

evaluation. The area may be small, as is the case with Boston, and excessive population and great wealth may be packed into it, in which situation it would be necessary to maintain a substantial police force. If the same wealth and the same population were located in a city of greater area, the same police cost would be less per square mile than would be the case in the smaller city.

Neither do population figures alone constitute a proper basis of evaluation. They are subject to substantial correction due to peculiar characteristics or special circumstances present in each particular city. For instance, in a city which has absorbed substantially all its suburban area a high proportion of those at any time in the city itself reside within its limits, and are included in any computation based on population. However, in those cities where the suburban and residential area is largely without the city limits, a large proportion of those subject to police oversight and supervision reside outside of the city and are, therefore, excluded in a per capita computation. Boston is a striking example of a city in the latter class and must necessarily and unfairly suffer in per capita computations with cities in the former class.

In this connection, in the "Survey of Crime and Criminal Justice in Boston" conducted by the Harvard Law School, it is stated:

> "Boston pays a greater amount per capita for police service and has more policemen in proportion to population than any other large city in the United States. But her situation is peculiar in that the city is merely the heart of a closely knit metropolitan district. Naturally, the cost of policing a high-valued district and traffic-congested center of crooked streets is proportionately much greater than it would be if the cost in the less congested surrounding area were combined with it and proportioned to the total population and assessed valuation." (VOL. III., PP. 18-19)

In a later report the Finance Commission will discuss this phase of the Boston situation.

Similarly, elements of unreliability are observable in the third method of comparison - per each $1000 of valuation. Definitely, it cannot be considered reliable when standing alone. The location of the great portion of the wealth of a community, whether it be centralized in one or more adjacent areas or widely and more or less uniformly scattered over the whole area of a city, makes a great difference in police service requirements.

Other important variations which affect the figures relating to police costs per $1000 of valuation in each of the large cities hereinbefore considered arise from differences in their respective laws and policies. For instance, the proportion of the total wealth of a city included in the taxable valuation is affected by the laws relating to taxation in force in each city, and varies widely. And an equal variation occurs in the policies which determine at what percentage of its full value the taxable wealth in a city is to be actually assessed.

The result of the application of the three bases to police costs, so far as they relate to the nine cities under consideration, is brought out in the following table which shows the actual dollar increase in police costs between the years 1912 and 1939 and the effect which these increases have upon the per capita cost, the cost per $1000 of valuation, and the cost per square mile.

EFFECTS OF POLICE COST INCREASE

City	Increase	Per Capita	Per $1000 Val.	Per Sq. Mile
New York	$52,118,239	$6.85	$3.13	$159,382.
Chicago	10,560,526	2.85	5.42	49,626.
Philadelphia	7,119,597	3.45	2.82	54,977.
Cleveland	3,834,104	4.11	3.15	52,214.
St. Louis	3,598,258	4.28	3.41	58,699
Boston	3,615,641	4.45	2.37	75,625
Baltimore	3,550,649	4.09	2.89	45,104
Pittsburgh	1,625,694	2.32	1.48	29,829
Detroit	10,413,423	6.51	4.21	75,519

This table shows that Chicago increased its police cost in dollars approximately three times as much as Boston, yet that increase when translated into per capita figures is $1.60 less than Boston's increase per capita. It also shows that the cost per square mile and the cost per capita increased in Chicago about two-thirds what it did in Boston; but, on the $1000 of valuation basis, the increase in Chicago is more than twice that of Boston.

The New York increase in dollars is the greatest among the nine cities; yet, that great increase affected the cost per $1000 of valuation much less than the dollar increases in four other cities affected the cost per $1000 of valuation in those cities. Yet the New York increase in dollars caused the greatest increase in per capita cost and in per square mile cost among all the nine cities.

This variation in results shows the limited value that can be placed upon comparisons between cities by per capita, by $1000 of valuation, and by square mile costs. Nevertheless, the Finance Commission is of opinion that although these comparisons do not furnish a proper basis for deciding whether or not the Boston police cost is actually too great or too little, they do show that there is sufficient warrant for the conclusion that the police expense of Boston is high in comparison with the other cities under consideration.

No increase, therefore, in the police expense is recommended without a detailed examination of the administration of the police department. The Commission has been unable at this writing, with the staff of employees available, to complete such a detailed examination, but proposes to carry on the study and see whether or not there is proper justification for an increase. For the time being, therefore, the Commission believes decision upon the Police Commissioner's request for more men should be deferred, at least until the investigation has been completed.

By refusing to yield to the Police Commissioner's request for two hundred additional men last year, there has been saved the taxpayers somewhere between $100,000 and $160,000. No great harm has come from that decision. The Police Commissioner has already been given thirty additional men in 1940. It would seem to be the part of wisdom to defer further appointments until good reason has been shown. It does not appear to the Finance Commission that

every effort has yet been made to avoid the necessity of increasing the present size of the police force.

Respectfully submitted,

Charles M. Storey, Chairman

David Lasker

James H. Flanagan

Elias F. Shamon

THE FINANCE COMMISSION.

Commissioner James E. Maguire dissents from the report as follows:

"The administrative responsibility for the management of the police department is vested in a Commissioner appointed by the Governor with the approval of the Executive Council. When he asks for additional men it must be assumed that he is acting in the exercise of his best discretion, and entirely in the public interest. His requests cannot be denied except upon substantial grounds. None has been submitted.

"Comparisons with other cities are interesting, but no two cities have the same conditions. Each must solve its problems in its own way. Likewise it is of little value to take the year 1912 as a constant from which to figure the city's police costs. There was discontent in the department at the time, which later had to be met in the following manner:

By an increase in pay for patrolmen from $1400 to $2100
By a sharp curtailment in working hours
By an improvement in housing quarters.

"An adequate police force is a necessity. It is expensive, of course, but it is an expense that must be met. It is idle, therefore, to talk about valuations of this and other cities. As values come down the police costs appear in the statistics to go up. The petitioners for lower tax valuations should remember that public services are based on public income.

"On all the facts available I believe the request of the Police Commissioner for an increase in the police force should not be deferred until a further consideration by the Commission.